IN THE CLAIMS:

Please amend the claims as follows:

Claim 1 (Currently Amended): A semiconductor photodetector comprising a semiconductor substrate formed with a plurality of pn junction type photodiodes on a side of the semiconductor substrate opposite from an incident surface of the semiconductor substrate for receiving light to be detected;

wherein a ~~pn junction~~ separate region including a pn junction, which is separate from the photodiodes, is formed between photodiodes adjacent each other in the plurality of photodiodes on the side of the semiconductor substrate opposite from the incident surface ~~of the semiconductor substrate~~.

Claim 2 (Currently Amended): A semiconductor photodetector according to claim 1, wherein the ~~pn junction~~ separate region is formed so as to surround the photodiode as seen from the opposite side.

Claim 3 (Currently Amended): A semiconductor photodetector according to claim 1, wherein a high-concentration impurity semiconductor region having the same ~~conductive~~ conductivity type as that of the semiconductor substrate is formed between the ~~pn junction~~ separate region and the photodiode on the opposite side of the semiconductor substrate.

Claim 4 (Original): A semiconductor photodetector according to claim 3, wherein the high-concentration impurity semiconductor region is formed so as to surround the photodiode as seen from the opposite side.

Claim 5 (Currently Amended): A semiconductor photodetector according to claim 4, wherein an electrode electrically connected to the ~~pn junction~~ the separate region and high-concentration impurity semiconductor region is formed on the opposite side of the semiconductor substrate; and

wherein the electrode is connected to a ground potential.

Claim 6 (Currently Amended): A semiconductor photodetector according to claim 4, wherein a first electrode electrically connected to the ~~pn junction~~ separate region and a second electrode electrically connected to the high-concentration impurity semiconductor region are formed on the opposite side of the semiconductor substrate;

wherein the first and second electrodes are connected to respective ground potentials while being electrically insulated from each other.

Claim 7 (Currently Amended): A semiconductor photodetector according to claim 1, wherein the semiconductor substrate is of a first ~~conductive~~ conductivity type; and wherein the plurality of photodiodes and ~~pn junction~~ separate region are constituted by a second ~~conductive~~ conductivity type impurity semiconductor region and the semiconductor substrate.

Claim 8 (Currently Amended): A semiconductor photodetector according to claim 3, wherein the semiconductor substrate and high-concentration impurity semiconductor region are of a first ~~conductive~~ conductivity type; and wherein the plurality of photodiodes and ~~pn junction~~ separate region are constituted by a second ~~conductive~~ conductivity type impurity semiconductor region and the semiconductor substrate.

Claim 9 (Original): A semiconductor photodetector according to claim 1, wherein the opposite side of the semiconductor substrate is formed with respective electrodes, each including a bump electrode, electrically connected to the plurality of photodiodes;

the semiconductor photodetector further comprising a support member formed with respective electrode pads, formed on a side facing the semiconductor substrate, corresponding to the plurality of photodiodes; the plurality of photodiodes being electrically connected to the electrode pads corresponding thereto in the support member by way of the respective bump electrode.

Claim 10 (Original): A radiation detecting apparatus comprising the semiconductor photodetector according to claim 1; and

a scintillator, positioned on the incident surface side of the semiconductor substrate, emitting light in response to a radiation incident thereon.